

1 1.(Currently Amended) A method of distributing image prints printed on a plurality
2 of printers to a plurality of recipients, the method comprising:

3 receiving an order specifying ~~one or more~~ a plurality of recipients and, for each specified
4 recipient, a set of one or more images associated with that recipient; and

5 for each recipient specified by the order, separating the images associated with the
6 recipient into at least one printable unit of images to generate a contiguous run of prints for the
7 recipient.

1 2.(Original) The method of claim 1 further comprising, for each printable unit,
2 selecting a printer on which to print the printable unit.

1 3. (Original) The method of claim 2 further comprising, for each printable unit, printing
2 at least one copy of each image in the printable unit on the selected printer.

1 4.(Original) The method of claim 1 wherein each image has associated print
2 parameters.

1 5.(Original) The method of claim 4 wherein the images in a printable unit of images
2 have print parameters that allow the printable unit to be continuously printed.

1 6. (Original) The method of claim 1 wherein images in a first recipient's image set
2 differ from images in a second recipient's image set.

1 7. (Original) The method of claim 4 wherein print parameters of a first recipient's
2 image set differ from print parameters of a second recipient's image set.

1 8. (Original) The method of claim 7 wherein print parameters include one or more of
2 print size, number of copies, and/or print finish.

1 9. (Original) The method of claim 1 wherein print parameters differ among images
2 within an image set.

1 10. (Original) The method of claim 9 wherein print parameters include one or more of
2 print size, number of copies, and/or print finish.

1 11. (Original) The method of claim 1 wherein each image set comprises an arbitrary
2 grouping of images designated by a user.

1 12.(Original) The method of claim 1 further comprising, for each recipient, separating
2 the images associated with the recipient into one or more sub-orders.

1 13.(Original) The method of claim 12 wherein separating the images associated with the
2 recipient into at least one printable unit of images includes, for each sub-order, separating the
3 images associated with the sub-order into one or more sub-batches, each sub-batch representing a
4 printable unit.

1 14.(Original) The method of claim 13 wherein the images in a sub-batch have print
2 parameters that allow the sub-batch to be continuously printed.

1 15.(Original) The method of claim 13 wherein a plurality of orders is received, the
2 images associated with each recipient specified in each order are divided into at least one sub-
3 order, and each sub-order is divided into at least one sub-batch.

1 16.(Original) The method of claim 15 further comprising assembling at least one batch
2 including one or more sub-batches, wherein each sub-batch can be continuously printed on the
3 same type of printer.

1 17.(Original) The method of claim 16 wherein the images in a batch have print
2 parameters that allow the batch to be continuously printed.

1 18.(Original) The method of claim 16 wherein the at least one batch includes sub-
2 batches from two or more different sub-orders.

1 19.(Original) The method of claim 16 further comprising scheduling the batches to be
2 printed in a predetermined ordering.

1 20.(Original) The method of claim 19 wherein each order includes image data and
2 control data.

1 21.(Original) The method of claim 20 wherein the control data includes at least one of
2 print parameters, user contact information, recipient information, payment information, and
3 message information.

1 22.(Original) The method of claim 21 wherein the image data includes pixel data for the
2 images in the order.

1 23.(Original) The method of claim 22 wherein the control data is used to control the
2 printing of the images.

1 24.(Original) The method of claim 20 further comprising, before printing each image:
2 correcting the image data for that image using information including the control data; and
3 calibrating the image data using information including the control data and at least one
4 characteristic of the printer on which the image is to be printed.

1 25.(Original) The method of claim 20 further comprising, for each batch, storing the
2 image data for the batch in a cache that is local to the selected printer for that batch.

1 26.(Original) The method of claim 25 further comprising, for each batch, placing the
2 control data for the batch in a queue associated with the selected printer for that batch.

1 27.(Original) The method of claim 26 further comprising, for each batch that is placed
2 in a queue, sending the image data associated with the images included in that batch to an image
3 processor associated with the selected printer for that batch.

1 28.(Original) The method of claim 27 wherein, for each batch that is placed in a queue,
2 sending the image data for that batch to the image processor associated with that queue before
3 the batch reaches the front of the queue.

1 29.(Original) The method of claim 1 further comprising verifying that an image print
2 was printed with the correct image.

1 30.(Original) The method of claim 1 further comprising checking the quality of the
2 image print.

1 31.(Original) The method of claim 13 further comprising:
2 combining the image prints from at least two sub-batches from the same sub-order; and
3 distributing the combined image prints to the recipient associated with the at least two
4 sub-orders.

1 32. (Original) The method of claim 1 further comprising printing a destination identifier
2 print that identifies the specified recipient for a corresponding sub-batch of image prints.

1 33. (Original) The method of claim 32 wherein the destination identifier print delimits
2 the corresponding sub-batch.

1 34. (Original) The method of claim 32 wherein printing the destination identifier print
2 comprises printing one or more of the following items: a shipping address, a recipient's name, a
3 print index, a bar code, a textual message and/or print re-ordering information.

1 35. (Currently Amended) A method of generating physical manifestations of digital
2 content on a plurality of output devices, the method comprising:

3 receiving an order specifying ~~one or more~~ a plurality of recipients and, for each specified
4 recipient, a set of digital content associated with that recipient;

5 for each recipient specified by the order, separating the digital content associated with the
6 recipient into at least one generatable unit of digital content having a contiguous run of prints for
7 the recipient; and

8 for each generatable unit of digital content, generating a physical manifestation of the
9 unit of digital content.

1 36.(Original) The method of claim 35 further comprising, for each generatable unit of
2 digital content, selecting an output device on which to generate a physical manifestation of the
3 unit of digital content.

1 37.(Original) The method of claim 36 wherein each generatable unit of digital content is
2 generated on the output device selected for that generatable unit.

1 38.(Original) The method of claim 35 further comprising distributing the physical
2 manifestations to their respective recipients.

1 39. (Original) The method of claim 35 wherein a set of digital content comprises one or
2 more digital images.

1 40. (Original) The method of claim 39 wherein the physical manifestation of the set of
2 digital content comprises photographic prints of the one or more digital images.

1 41.(Original) The method of claim 40 wherein the images in a generatable unit of
2 images have generation parameters that allow the generatable unit to be continuously generated.

1 42.(Original) The method of claim 41 wherein the print parameters include one or more
2 of print size, number of copies, and/or print finish.

1 43.(Currently Amended) A print distribution system comprising:

2 a plurality of printers;
3 a front-end computer sub-system for receiving an order specifying ~~one or more~~ a plurality
4 of recipients and, for each specified recipient, a set of one or more images associated with that
5 recipient; and

6 a scheduler, connected to the front-end computer sub-system and the plurality of printers,
7 that for each recipient specified by the order (a) separates the images associated with the
8 recipient into at least one printable unit of images to generate a contiguous run of prints for the
9 recipient, and (b) designates a printer on which each printable unit is to be printed.

1 44.(Original) The system of claim 43 wherein each image has associated print
2 parameters.

1 45.(Original) The system of claim 44 wherein the images in a printable unit of images
2 have print parameters that allow the printable unit to be continuously printed.

1 46. (Original) The system of claim 43 wherein images in a first recipient's image set
2 differ from images in a second recipient's image set.

1 47. (Original) The system of claim 43 wherein print parameters of a first recipient's
2 image set differ from print parameters of a second recipient's image set.

1 48. (Original) The system of claim 47 wherein print parameters include one or more of
2 print size, number of copies, and/or print finish.

1 49. (Original) The system of claim 47 wherein print parameters differ among images
2 within an image set.

1 50. (Original) The system of claim 49 wherein print parameters include one or more of
2 print size, number of copies, and/or print finish.

1 51. (Original) The system of claim 43 wherein each image set comprises an arbitrary
2 grouping of images designated by a user.

1 52.(Original) The system of claim 43 wherein the scheduler:
2 for each recipient, separates the images associated with the recipient into one or more
3 sub-orders; and
4 for each sub-order, separates the images associated with the sub-order into one or more
5 sub-batches, each sub-batch representing a printable unit.

1 53.(Original) The system of claim 52 wherein:
2 the front-end computer sub-system receives a plurality of orders; and
3 the scheduler, for each recipient, separates each order into one or more sub-orders and,
4 for each sub-order, separates each sub-order into one or more sub-batches.

1 54.(Original) The system of claim 53 wherein the scheduler assembles at least one batch
2 including one or more sub-batches, wherein each sub-batch can be continuously printed on the
3 same type of printer.

1 55.(Original) The system of claim 54 wherein the scheduler schedules the batches to be
2 printed in a predetermined ordering.

1 56.(Original) The system of claim 55 wherein the scheduler uses a global scheduling
2 algorithm.

1 57.(Original) The system of claim 55 wherein the scheduler uses a just-in-time
2 scheduling algorithm.

1 58.(Original) The system of claim 55 further comprising a plurality of line controllers,
2 each line controller being associated with a printer and having a queue for storing the batches
3 until they are printed by the printer.

1 59.(Original) The system of claim 58 wherein each order includes image data and
2 control data.

1 60.(Original) The system of claim 59 wherein the control data includes at least one of
2 print parameters, user contact information, recipient information, payment information, and
3 message information.

1 61.(Original) The system of claim 60 wherein the image data includes pixel data for the
2 images in the order.

1 62.(Original) The system of claim 61 further comprising an image cache local to the
2 scheduler for caching the image data.

1 63.(Original) The system of claim 58 further comprising an image processor associated
2 with at least one of the line controllers for processing the image data and at least a portion of the
3 control data prior to printing the image.

1 64.(Original) The system of claim 63 wherein the image processor further comprises
2 image processor software in a computer-readable medium comprising instructions for causing
3 the image processor to perform the following operations:

4 correct the image data using information including the control data; and
5 calibrate the image data using information including the control data and at least one
6 characteristic of the designated printer.

1 65.(Original) The system of claim 64 wherein the image processor software further
2 comprises instructions for causing the image processor to generate a destination identifier image,
3 wherein the destination identifier image can be used to print a destination identifier print that
4 identifies the specified recipient for a corresponding sub-batch of image prints and is generated
5 from at least the sub-batch's control data.

1 66.(Original) The system of claim 65 wherein the destination identifier image for each
2 sub-batch is generated from the sub-batch's control data and image data.

1 67.(Original) The system of claim 64 wherein the image cache includes software in a
2 computer-readable medium comprising instructions for causing the image cache to perform the
3 following operation:

4 in response to a message from the scheduler indicating that the scheduler has sent control
5 data for a batch to the line controller, send the image data for that batch to the image processor
6 associated with that queue.

1 68.(Original) The system of claim 43 further comprising a backprinter for backprinting
2 at least one image print.

1 69.(Original) The system of claim 68 wherein the backprinter backprints non-image
2 information on each image print.

1 70.(Original) The system of claim 69 wherein the non-image information includes at
2 least one of an image number associated with the image, a printable unit number associated with
3 the printable unit from which the image print was printed, reorder information, a bar code, and a
4 message.

1 71.(Original) The system of claim 70 wherein the message is an advertisement.

1 72.(Original) The system of claim 71 wherein the bar code encodes at least one of an
2 audio message, the image number associated with the image, and the printable unit number
3 associated with the printable unit from which the image print was printed.

1 73.(Original) The system of claim 59 further comprising a digital camera for capturing
2 data about at least one of the image prints.

1 74.(Original) The system of claim 73 wherein the camera is a low-resolution camera.

1 75.(Original) The system of claim 73 wherein the captured data is used to verify that the
2 an image print was printed with the correct image data.

1 76.(Original) The system of claim 73 wherein the captured data is used to check the
2 quality of the image print.

1 77.(Original) The system of claim 43 further comprising an inverter that inverts each
2 image print prior to backprinting.

1 78.(Original) The system of claim 77 further comprising a curl reduction equipment that
2 reduces curling of the image print prior to backprinting.

1 79.(Original) The system of claim 78 wherein the curl-reduction equipment uses suction
2 to reduce curling of the image print.

1 80.(Original) The system of claim 79 wherein the curling-reduction equipment device
2 includes a vacuum table.

1 81.(Original) The system of claim 77 further comprising an alignment device that aligns
2 each image print prior to backprinting.

1 82.(Original) The system of claim 81 wherein the alignment device includes:
2 an alignment wall against which each image print is to be aligned prior to backprinting;
3 and
4 a skew conveyor that receives each image print after the image print has been printed and
5 moves the image print towards the alignment wall as the skew conveyor conveys the image print
6 to the backprinter.

1 83.(Original) The system of claim 82 further comprising an alignment sensor positioned
2 laterally inward from the alignment wall that detects whether a portion of the image print is
3 positioned immediately beneath the alignment sensor.

1 84.(Original) The system of claim 83 wherein the alignment sensor is a photosensor that
2 optically senses the presence of the image print.

1 85.(Original) The system of claim 43 further comprising a conveyor on which image
2 prints are stacked after printing.

1 86.(Original) The system of claim 85 further comprising a controller, connected to the
2 conveyor, that advances the conveyor so that a new stack can be stacked after all the image prints
3 in a printable unit have been stacked on the conveyor.

1 87.(Original) The system of claim 86 further comprising a plurality of bins, positioned
2 on the conveyor, so that the image prints for a printable unit are stacked in a bin.

1 88.(Original) The system of claim 87 wherein the bin comprises:
2 a base for supporting the bin when the bin is placed on a surface of the conveyor;
3 a first bottom wall connected to the base so that the first wall has a pitch incline with
4 respect to the surface of the conveyor; and
5 a second bottom wall connected to a first end of the first wall at one end, the second wall
6 and first wall forming an angle so that image prints received in the bin tend to stack on the first
7 bottom wall with an edge of each image print registering with the second bottom wall.

1 89.(Original) The system of claim 52 further comprising a storage device in which one
2 or more sub-batches can be stored for later combination with other sub-batches.

1 90. (Canceled) An alignment device used for aligning image prints, the alignment device
2 comprising:
3 an alignment wall against which each image print is to be aligned; and
4 a skew conveyor that receives each image print after the image print has been printed and
5 moves the image print towards the alignment wall as the image print is conveyed along the skew
6 conveyor.

1 91. (Canceled) The alignment device of claim 90 further comprising an alignment sensor
2 positioned laterally inward from the alignment wall that detects whether a portion of the image
3 print is positioned immediately beneath the alignment sensor.

1 92. (Canceled) The system of claim 91 wherein the alignment sensor is a photosensor that
2 optically senses the presence of the image print.

1 93. (Canceled) A bin for collecting image prints comprising:
2 a base for supporting the bin when the bin is placed on a surface;
3 a first bottom wall connected to the base so that the first wall has a pitch incline with
4 respect to the surface; and
5 a second bottom wall connected to a first end of the first wall at one end, the second wall
6 and first wall forming an angle so that image prints received in the bin tend to stack on the first
7 bottom wall with an edge of each image print registering with the second bottom wall.

1 94. (Canceled) The bin of claim 93 wherein the first bottom wall has an access notch
2 formed therein that provides access to any image prints stacked in the bin.

1 95. (Canceled) The bin of claim 93 further comprising a side wall mounted to a side edge
2 of the first and second bottoms walls.

1 96. (Canceled) The bin of claim 95 wherein the first bottom wall has a roll incline with
2 respect to the surface so that image prints received in the bin tend to stack on the first bottom
3 wall with an edge of each image print registering with the second bottom wall.

1 97. (Canceled) A method of tracking an order specifying a plurality of recipients and, for
2 each specified recipient, a sub-order of one or more images associated with that recipient,
3 wherein each image is to be printed, packaged, and shipped, the method comprising:
4 indicating that the image is in a first state when the order with which the image is
5 associated has been received from a user;
6 indicating that the image is in a second state when the image is being processed;

7 indicating that the image is in a third state when an image print created from the image
8 has been packaged; and

9 indicating that the image is in a fourth state when the image print has been shipped.

1 98. (Canceled) The method of claim 97 further comprising indicating that the image is in
2 a fifth state if the image is stored.

1 99. (Canceled) The method of claim 98, wherein the first state is an entered state, the
2 second state is a processing state, the third state is a packaged state, the fourth state is a shipped
3 state, and the fifth state is a stored state.

1 100. (Canceled) The method of claim 97, further comprising, if an error is detected
2 while the image is in the second state and before the image is in the third state, reprinting the
3 image.

1 101. (Canceled) A method of checking an image print that was printed from an
2 image stored in an electronic file, the method comprising:

3 generating a first image signature based on the electronic file;

4 generating a second image signature based on the image print; and

5 signaling an error if a predetermined criterion that is a function of the first and second
6 signatures is met.

1 102. (Canceled) The method of claim 101 wherein generating the first image
2 signature includes sampling the electronic file to create a lower-resolution image based on the
3 image.

1 103. (Canceled) The method of claim 102 wherein generating the second image
2 signature includes taking a picture of the printed image.

1 104. (Canceled) The method of claim 102 wherein the Haar feature-recognition
2 algorithm is used to determine if the predetermined criterion is met.

1 105. (Canceled) The method of claim 103 wherein the pictures are taken at substantially
2 the same resolution as the lower-resolution image.

1 106. (Canceled) The method of claim 105 wherein the lower-resolution image and
2 the picture each comprise a plurality of pixels.

1 107. (Canceled) The method of claim 106 further comprising signaling a second
2 error if a predetermined number of pixels in the lower-resolution image do not match
3 corresponding pixels in the picture.

1 108. (Canceled) The method of claim 101 wherein the predetermined criterion is
2 that the first and second signatures correlate within a predetermined tolerance.

1 109. (Canceled) The method of claim 101 wherein checking comprises confirming
2 that the image prints are printed in the correct order.

1 110. (Canceled) The method of claim 101 wherein checking comprises examining
2 the quality of the image prints.

1 111. (Canceled) A method of generating an image print from an image, the method
2 comprising:
3 receiving an image;
4 printing the image to generate an image print;
5 reducing curling of the image print; and
6 backprinting information on the back of the image print.

1 112. (Canceled) The method of claim 111 wherein the image includes image data
2 and control data.

1 113. (Canceled) The method of claim 111 wherein the image is printed on a printer.

1 114. (Canceled) The system of claim 113 further comprising, before printing the
2 image:
3 correcting the image data for the image using information including the control data; and
4 calibrating the image data using information including the control data and at least one
5 characteristic of the printer.

1 115. (Canceled) The method of claim 111 wherein the information backprinted on
2 to the image includes non-image information.

1 116. (Canceled) The method of claim 115 wherein the non-image information
2 includes at least one of an image number associated with the image, reorder information, a bar
3 code, and a message.

1 117. (Canceled) The method of claim 116 wherein the message is an advertisement.

1 118. (Canceled) The method of claim 117 wherein the bar code encodes at least one
2 of an audio message and an image number.

1 119. (Canceled) The method of claim 118 wherein the image number is associated
2 with the image.

1 120. (Canceled) The method of claim 111 further comprising inverting the image
2 print prior to backprinting.

1 121. (Canceled) The method of claim 120 further comprising aligning the inverted
2 image print prior to backprinting.

1 122. (Canceled) The method of claim 111 wherein curling of the image print is
2 reduced using suction.

1 123. (Canceled) The method of claim 122 wherein curling of the image print is
2 reduced using a vacuum table.

1 124. (Canceled) The method of claim 121 further comprising verifying that an
2 image print was printed with the correct image.

1 125. (Canceled) The method of claim 111 further comprising checking the quality
2 of the image print.

1 126. (Canceled) A print system for printing images, the system comprising:
2 a front-end computer sub-system that receives an order specifying one or more images
3 and one or more recipients;
4 a printer sub-system, connected to the front-end computer sub-system, that prints image
5 prints from the images in the order;
6 a packaging sub-system that receives image prints from the printer sub-system and
7 packages the image prints for shipment to the order's recipient; and
8 a shipping sub-system that receives the packaged image prints from the packaging sub-
9 system and ships the packaged image prints to the order's recipient;
10 wherein the images are processed automatically by the front-end sub-system, the printer
11 sub-system, the packaging sub-system, and the shipping sub-system.

1 127. (Canceled) A method of distributing image prints comprising:
2 receiving set of one or more image prints, the set having one or more associated
3 recipients;
4 indicating which type of packaging material is to be used to package the set of image
5 prints based on information printed on at least one of the image prints in the set of image prints;
6 and
7 indicating which method of shipping is to be used to ship the set of image prints based on
8 information printed on at least one of the image prints in the set of image prints.

1 128. (Canceled) The method of claim 127 further comprising packaging the set of
2 image prints using the indicated type of packaging material.

1 129. (Canceled) The method of claim 127 further comprising shipping the set of
2 image prints using the indicated shipping method.

1 130. (Canceled) The method of claim 127 wherein indicating which type of
2 packaging material is to be used includes lighting a light associated with the indicated type of
3 packaging material.

1 131. (Canceled) The method of claim 127 wherein indicating which shipping
2 method is to be used includes lighting a light associated with the indicated shipping method.

1 132. (Canceled) The method of claim 127 wherein the information printed on at
2 least one image print includes a bar code.

1 133. (Canceled) The method of claim 132 further comprising reading the bar code
2 printed on at least one image print.

1 134. (Canceled) The method of claim 133 wherein the type of packaging material
2 to be used to package the set of image prints is indicated based on the bar code.

1 135. (Canceled) The method of claim 133 wherein the method of shipping to be
2 used is indicated based on the bar code.

1 136. (Canceled) A packaging system comprising:
2 a plurality of packaging bins for storing image print packaging material;
3 a plurality of visual indicators, wherein each packaging bin is associated with at least one
4 visual indicator, wherein the visual indicators associated with the packaging bins are used to
5 indicate in which packaging bin the packaging material for a set of image prints is stored.

1 137. (Canceled) The system of claim 136 further comprising a plurality of shipping
2 bins for storing packaged image prints, wherein each shipping bin is associated with at least one
3 visual indicator and at least one shipping method; and wherein the visual indicators indicate in
4 which shipping bin a packaged set of image prints should be stored for subsequent shipping by
5 the shipping method associated with the indicated shipping bin.

1 138. (Canceled) The system of claim 137 wherein the visual indictors are used to
2 sort the packaged image prints by method of shipping.

1 139. (Canceled) The system of claim 137 wherein each shipping bin is associated
2 with a range of weights.

1 140. (Canceled) The system of claim 139 wherein the visual indictors are used to
2 sort the packaged image prints by weight and method of shipping.

1 141. (Canceled) The system of claim 137 wherein each shipping bin is associated
2 with one or more ZIP codes.

1 142. (Canceled) The system of claim 141 wherein the visual indictors are used to
2 sort the packaged image prints by ZIP code and method of shipping.

1 143. (Canceled) The system of claim 136 wherein the visual indicators comprise a
2 plurality of lights.

1 144. (Canceled) The system of claim 136 further comprising a display monitor, and
2 wherein the visual indictors are displayed on the display monitor.

1 145. (Canceled) The system of claim 136 further comprising a storage rack for
2 storing image prints for subsequent combination with other image prints.

1 146. (Canceled) The system of claim 145 wherein the storage rack further includes
2 plurality of cubby-holes, each cubby-hole having an associated visual indicator.

1 147. (Canceled) The system of claim 146 wherein the visual indicators are used to
2 indicate in which cubby-hole a given image print is to be stored for subsequent combination with
3 other image prints.

1 148. (Canceled) The system of claim 147 wherein the visual indicators are used to
2 indicate from which cubby-hole a given image print is to be removed for combination with other
3 image prints.